

OBITUARIES OF THE MEMBERS OF THE OHIO ACADEMY OF SCIENCE: REPORT OF THE NECROLOGY COMMITTEE, 1993

The Necrology Committee of The Ohio Academy of Science, chaired by Historian-Archivist, Ronald L. Stuckey, seeks additional members and individuals to prepare obituaries. In this report are 21 obituaries of deceased members arranged alphabetically, including all of the past presidents whose names appeared in the 1991 and 1992 reports. Names of six deceased members that have become known to the Academy since the 1992 report are listed below along with their section affiliation and the years they became members. Thanks are extended to the contributors: C. Wayne Ellett, Michael S. Herschler, Relda E. Niederhofer, and W. Louis Phillips. Thanks are also extended to William R. Burk, University of North Carolina, Chapel Hill, who helped the chairman with this report.

RONALD L. STUCKEY

NAME	SECTION	YEAR JOINED
Emmett T. Bodenberg	B. Plant Sciences	1926
Stanley P. Fisher	C. Geology	1965
* E. Oscar Woolfolk	G. Chemistry	1955
Jerome D. Folkman	I. Anthropology & Sociology	1961
Fred H. Glenny	J. Natural Resources	1937
Ronald M. Watterson	S. Information & Library Sciences	1980

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Joseph Kenneth Balogh (1914-1990)

Joseph Kenneth Balogh, Professor of Sociology at Bowling Green State University until 1981, died 5 April 1990 at age 76 in Loveland, OH. Nationally known for his expertise in criminology, corrections, juvenile delinquency, and mental health, Balogh's research resulted in five books, more than 50 articles in professional publications, surveys, book reviews, and monographs. He was president of The Ohio Academy of Science (1967-1968). In 1984 Dr. Balogh was presented the Jackman Medallion of Distinction by California University of Pennsylvania, an award given to alumni of the college who have gained regional, national, and international recognition in their professions.

Born 8 July 1914 in Donora, PA, Balogh graduated with a B.S. (1937) from California University of Pennsylvania, PA, and received the Litt.M. (1939) and Ph.D. (1945) in sociology and criminology from the University of Pittsburgh. His educational career began with teaching in the public school at Donora (1937-1942). He taught sociology at Hillsdale College, MI (1945-1946) and St. Lawrence University, Canton, NY (1946-1949). Balogh came to Bowling Green State University, OH, as an assistant professor of sociology and criminology (1949-1959), was promoted to professor (1965), and served as chairman of the Department of Sociology (1965-1973). He was instrumental in creating the University's doctoral program in sociology and in 1973 became the founding dean of the newly established College of Health and Human Services. Under his direction the College grew from an initial 125 students in six programs to an enrollment of 1,300 students in 14 areas of specialization. He retired from the deanship in 1980 to return to teaching and left the University in 1981. Additionally, he was chair of the Faculty Senate (1969), named Faculty Man of the Year by Omicron Delta Kappa national leadership honorary (1974), and was named a Trustee Professor by the Board of Trustees (1982).

Dr. Balogh was a member of numerous organizations including the International Society of Criminology, the American Society of Criminology, the American Academy of Political and Social Science, the American Association for the Advancement of Science, and the American Correctional Association. He was elected a member of honor societies, Phi Kappa Phi, Phi Delta Kappa, Phi Alpha Theta, Pi Gamma Mu, Alpha Kappa Delta, Phi Eta Sigma, and Alpha Tau Omega. Additional details on Balogh's professional accomplishments are published in *Who's Who in the Midwest* (1967-1968).

Dr. Balogh is survived by his wife, Virginia (Macko) Balogh, whom he married 6 September 1947; a brother Daniel of Walnut Creek, CA; sister Helen (Balogh) Lovick of Concord, CA; three sons, Merlin of Loveland, OH; Randy of Tacoma, WA, and Kevin of Broomfield, CO.

REIDA E. NIEDERHOFFER

Marion Waterman Boesel (1901-1992)

Marion Waterman Boesel, age 91, internationally recognized entomologist and authority on midges and biting midges, died 4 August 1992 at First Community Health Care Center, Columbus, OH. He was Professor Emeritus in the Department of Zoology, Miami University, Oxford, OH, having been associated there for 43 years. At age 83, he was given the award for the best paper published that year in *The Ohio Journal of Science* (1984), and for his years of service, a conference room in the Biological Sciences Building was named in his honor (1988).

Born 25 March 1901 in Columbus, OH, Marion Boesel was the son of Oliver H. and Anna M. (Waterman) Boesel. His early years were spent at New Bremen, OH, but the family later returned to Columbus. There he attended The Ohio State University, and as an undergraduate excelled in the classical languages, but then decided to pursue the life sciences at the graduate level, earning the degrees B.A. (1925), M.A. (1929), and Ph.D. (1939). He also attended Cornell University (1933-1934).

Dr. Boesel's professional positions were assistant in zoology and entomology, The Ohio State University (1925-1926), and in the Department of Zoology at Miami University, he was an instructor (1928-1929), assistant professor (1929-1941), associate professor (1941-1948), professor (1948-1971), and professor emeritus (1971-1992). Concurrently, he held positions of assistant biologist, State Conservation Division of Ohio (1929-1931), assistant entomologist, State Natural History Service Division, IL (1938-1939), and was on the summer faculty of The Franz Theodore Stone Laboratory, OSU, teaching entomology (1940-1947).

Marion Boesel first became interested in the insect families that contain the midges and biting midges, the Chironomidae and Ceratopogonidae, when he was in his early 20s. However, he could not devote full time to this research until after retiring from 43 years of teaching in 1971. His full-time work was the writing of keys to the genera and species and studying the organisms as a food source for fish and as indicators of water quality in streams. Dr. Boesel was a member of the honorary societies Phi Beta Kappa and Phi Sigma, and was a fellow in the Entomological Society of America and The Ohio Academy of Science.

John R. (Dick) Gorham, an entomologist with the Food and Drug Administration, writes that he had the good fortune to have Dr. Boesel as his instructor in General Zoology. "Even though quiet, soft spoken, and small in stature, Dr. Boesel inspired automatic respect. Dr. Boesel's lectures were crystal clear and delivered entirely from memory, and his tests were the fairest I ever encountered and were the product of endless revisionary improvement . . . Dr. Boesel fulfilled in his day-to-day life the best connotations of the words friend, teacher, scientist and gentleman." (From "A Memorial to Dr. Marion W. Boesel," by Paul M. Daniel, chairman of the Faculty Memorial Committee, 1992).

Marion Boesel married Antoinette Johanna Press, 15 June 1933, who preceded him in death (1991). He was a member of the Memorial Presbyterian Church, Oxford. Surviving is a son, Dr. Carl Boesel of Worthington and his family. Dr. Boesel was buried in Union Cemetery, Columbus.

W. LOUIS PHILLIPS

James McClellan Bradford (1904-1992)

James McClellan Bradford, age 88, Professor Emeritus of Physics at Muskingum College, New Concord, OH, died 14 July 1992 at the Good Samaritan Medical Center, Zanesville, OH. For 13 years Dr. Bradford was professor of physics (1959-1972) and served as chairman of the Department of Physics (1959-1966, 1969-1970). His research interests were the dielectric constant of Rochelle salt, crystalline structure of inorganic salts, acoustics, and solid state.

Born 24 May 1904 in Media, IL, James Bradford was the son of John Ewing and Mary (McClellan) Bradford. Young Bradford received the A.B. (1925) from Monmouth College, IL, and the M.S. (1926) from the University of Chicago. He continued with post graduate work in physics (1928-1929, 1932-1933; summers 1936, 1937, 1949); also at the University of Wisconsin (summers 1950, 1951, 1952). Dr. Bradford's entire professional teaching career was in physics, which began as an assistant professor, Miami University, Oxford, OH (1926-1927); acting professor and head of the Department of Physics, Muskingum College (1929-1931); graduate assistant at the University of Chicago (1931-1933); instructor at George Williams College, IL (1933-1937, 1945-1947); instructor and later assistant professor at Central YMCA College of the University of Chicago (1937-1945); associate professor of physics at Beloit College, WI (1947-1959); then returning as professor to Muskingum College (1959). Concurrently, Prof. Bradford was an instructor in the Civilian Pilot Training Program (1940-1942), a research physicist on the Manhattan Project at the University of Chicago (1943-1944), member National Science Foundation Institute for Teaching Physics (1954), General Motors Educators Conference (1960), researcher for Beloit Corporation (1957-1958), and with the National Science Foundation at the University of Florida (1967, 1969).

Dr. Bradford was a member of the American Association for the Advancement of Science, the American Association of Physics Teachers, and The Ohio Academy of Science, in which he participated with programs to 11 high schools in the Academy's visiting scientists program (1961-1965). He was elected a member of Sigma Xi and Sigma Pi Sigma. In New Concord, Dr. Bradford was village councilman (1964-1967), and a member of the Lions Club, Garden Club, Senior Citizens Evergreen Club, and Westminster Presbyterian Church.

Surviving are his wife, Mary Lois (Shepler) Bradford, whom he married on 3 September 1931; two daughters, Nancy Ann (Bradford) Gardner,

Schenectady, NY, and Mary Kathryn (Bradford) Sward, Skokie, IL; one sister, Isabel Bradford, LaGrange Park, IL. Memorial services were held 18 July 1992 in the Westminster Presbyterian Church, New Concord. Memorial contributions are to be made to the Church or Muskingum College.

REIDA E. NIEDERHOFER

Aubrey Swift Bradshaw (1910-1991)

Aubrey Swift Bradshaw, age 81, an aquatic ecologist, formerly Professor of Zoology at Ohio Wesleyan University, and consultant in the Environmental Sciences Division at Oak Ridge National Laboratory, died of a heart attack while attending services at the First Presbyterian Church, Oak Ridge, TN, 3 November 1991. He was president of The Ohio Academy of Science (1973-1974), and gave the longest known presidential address in recent Academy history. A. S. Bradshaw was the recipient of a Diploma of Merit from The Ohio Academy of Science and the Adam Poe Medal from Ohio Wesleyan University (1975).

Born 12 July 1910 in West Sunbury, PA, to Charles Lincoln and Sarah Bertha (Swift) Bradshaw, A. S. Bradshaw, as he was known, attended Maryville College in Tennessee and the University of Kentucky, Lexington, where from the latter he earned the B.A. (1934) and the M.A. (1944) degrees with a major in zoology, and also served as a graduate assistant (1934-1935). His thesis was on "The Effects of Starvation and Crowding on Future Broods and Generations in the Cladoceran *Daphnia pulex* De Greer."

In the summer of 1947, at The Franz Theodore Stone Laboratory, Bradshaw conducted research on the toxicity thresholds of various industrial wastes in young cladocerans in Lake Erie. He returned to the Laboratory in 1948 and began a doctoral dissertation that never resulted in a degree. It was a study of the population dynamics of the plankton cladocera and copepoda of shallow, productive western Lake Erie under the resident limnologist, Prof. David C. Chandler. The next year he followed Chandler to Cornell University and expanded his research to include the comparable fauna of the deep water unproductive Cayuga Lake. He also conducted a 15-month series of temperature readings for Cayuga Lake, the first year-round temperature report for a deep water lake on the North American Continent (Mem. 378, Cornell Univ. Agric. Exp. Sta., 1961). His findings of the plankton crustacea were the first documented example showing rapid eutrophication trends of these organisms in Lake Erie and to a lesser extent in Cayuga Lake (Proc. XVth Intern. Limnological Congress, 1964).

A. S. Bradshaw's professional career began at Transylvania College, Lexington, KY, where he was a part-time instructor in biology (1935-1938), an instructor in biology (1938-1943), professor of military geography for an Air Force detachment (1943-1944), assistant professor of biology and geography (1944-1951), and professor of biology (1951-1953). Concurrently, he was instructor of field biology on travel tours throughout North America (summers 1936-1941), a park ranger-naturalist at Mount Rainier National Park (summers 1942, 1945, 1946), Dean of Men at Transylvania (1946-1947), researcher at The F. T. Stone Laboratory (summers 1947-1948), teaching and research assistant in limnology (1949-1951), and visiting professor of limnology (summer 1952) at Cornell University.

Prof. Bradshaw came to Ohio Wesleyan University, Delaware, OH, where he was Professor of Zoology (1953-1972). During summers (1965-1967), he conducted institutes for science teachers sponsored by the National Science Foundation. He took leave and was an independent investigator with the Oak Ridge National Laboratory (Oct. 1972-Sept. 1973) before retirement and becoming Professor Emeritus from Ohio Wesleyan University (1975). He then became research professor of ecology at the University of Tennessee (1978-1985) and was a consultant with the Environmental Sciences Division at Oak Ridge National Laboratory (1976-1985).

A. S. Bradshaw was elected into the honorary societies of Phi Kappa Phi and Sigma Xi. He read most of his research papers at meetings of the American Society of Limnology and Oceanography. In addition to the presidency of The Ohio Academy of Science, Prof. Bradshaw was an extremely active member who was elected a fellow (1961), served as membership chairman (1963-1964) and vice-president (1964-1965) for Section A Zoology, a member of the Executive Committee (1964-1975), chairman of the Science Education Committee (1965-1969) with a final published report (Ohio J. Sci. 68: 246-255), and secretary of the Academy (1966-1972). He was president of the Ohio College Biology Teachers Conference (1962-1963), and wrote a brief history of the organization (Ohio J. Sci. 62: 308-311).

A. S. Bradshaw is survived by his wife Edythe (Hull) Bradshaw, with whom he celebrated 57 years of marriage in August 1991, and a daughter Tona at home. A memorial service was held 6 November 1991 in the First Presbyterian Church of Oak Ridge. Memorials are to be directed to The Minister's Discretionary Fund at the same church, 1051 Oak Ridge Turnpike, Oak Ridge, TN 37830.

RONALD L. STUCKEY

Harold Ernest Burt (1890-1991)

Harold Ernest Burt, age 101, distinguished Professor Emeritus of Psychology at The Ohio State University, died 15 August 1991 at First Community Health Center, Columbus. Widely known as a pioneer in industrial psychology, he wrote the first textbook on the subject, *Principles of Employment Psychology* (1926), and developed psychological tests for the United States Army during World War I. Burt was honored with the Distinguished Service Award from The Ohio State University (1963). On his 100th birthday, his former student, Frank Stanton (Ph.D. 1935), and former president of CBS, Inc. (1945-1971), presented a gift to The Ohio State University of \$1.25 million to endow the Harold E. Burt Chair in Industrial Psychology.

Born 26 April 1890 in Haverhill, MA, to Winslow Jordan and Annie Bell (Boyer) Burt, a blacksmith and school teacher, young Harold Burt knew at age 12 he wanted to be a college professor. He graduated from Haverhill High School, and received the A.B. *summa cum laude* from Dartmouth College (1911), and the M.A. (1913) and Ph.D. (1915) from Harvard University. From Dartmouth College, he was awarded the Parker Traveling Fellowship (1912-1914). Burt's professional positions were instructor of mathematics at Mt. Hermon Boys' School (1911-1912), instructor of psychology at Harvard University (1915-1917), instructor part-time at Simmons College (1913-1917), United States Army Air Service (1918), and consultant with the Canadian Consolidated Rubber Company (1919), before coming to the Department of Psychology at The Ohio State University. There he advanced through the ranks as instructor (1919-1921), assistant professor (1921-1923), professor (1923-1960), and professor emeritus (1960-1991).

For 22 years, Dr. Burt was chairman of the Department of Psychology (1938-1960), and during that time the Department grew rapidly, with added faculty, scholars, and graduate programs. Both basic and applied psychology thrived under his leadership, and he was able to hold together a diverse faculty with so many "stars" through his patience, skillful delegation, and recognition of real and imagined controversy. Prof. Burt was a teacher throughout his career, supervising 28 M.A. and 38 Ph.D. students, many of whom had distinguished careers, including four presidents of the Industrial and Organizational Psychology Division of the American Psychological Association.

Dr. Burt's research interests ranged widely in both basic and applied psychology. Among his numerous publications were his Ph.D. Dissertation on examining factors influencing the arousal of the primary visual memory image, completed under the direction of Professors Herbert S. Langfield and Hugo Munsterberg, and papers on detection of deception, measurement of intelligence, and personnel psychology. One of his most interesting investigations examined the effects of early exposure to Sophocles on subsequent memory, and involved the use of his son Benjamin as a subject. He published 7 books, *Principles of Employment Psychology* (1926/1942), *Psychology and Industrial Efficiency* (1929/1931), *Criminal and Legal Psychology* (1931/1940), *Psychology of Advertising* (1938), *Applied Psychology* (1948/1957), *Applied Psychology*, Abridged Edition (1952), and *The Psychology of Birds* (1967).

Harold Burt was elected to the Honor Societies of Phi Beta Kappa, Sigma Xi, and Phi Delta Kappa. Among professional societies were the American

Association for the Advancement of Science (vice-president, Psychology Section, 1949), American Association for Applied Psychology (vice-president, Industrial Section, 1937-1938; council of directors (1938-1940), American Psychological Association (founder and first president of Industrial Section, 1938; council of directors, 1933-1936). Dr. Burt joined The Ohio Academy of Science (1920), was vice-president for the Psychology Section (1926), and was elected an honorary member (1967). He performed editorial work for *The Journal of Applied Psychology*, *Journal of Consulting Psychology*, and the *Journal of Social Psychology*.

Over a period of 18 years to about 1962, Dr. Burt pursued bird watching and bird banding, and when the birds were later recovered, much information could be learned about their behavior and patterns of migration. He reported his banding studies to the United States Fish and Wildlife Service, and authored 35 papers about birds. The bird studies formed the basis of his seventh book, *The Psychology of Birds* (1967), which discussed bird behavior, food gathering, nesting, feeding their young, and migration patterns. Over 164,000 birds were banded, but ill health kept him from continuing this research, which was his major enjoyment in retirement. He had an interest in other facets of natural history, especially mosses and ferns, and held memberships in the Wheaton Club and the North American Mycological Association.

Dr. Burt, a member of the original committee that proposed the idea of a Faculty Club on the OSU campus, created a special mortgage-burning device called the "Ceremonial Hydro-kata-schizoid-rotary-diatherm," at a ceremony in 1945 when members retired the last of their bonds used to finance the building. During the festivities, Burt presented a "learned lecture" on the "complexities" of the instrument consisting of scissors, hatchets, and a match affixed to a piece of wood. The operation was successful. He also served as president of the Faculty Club (1945), and in 1987, at age 97, he was the oldest member of the Anvil and Billows Club, a Faculty lunch group that had "no purpose," but met once a week as an alternative to playing cards or chess.

Dr. Burt was very athletic. He fenced, played volleyball, tennis, and polo, his favorite sport. During the 1930s, he was a polo coach for a group of college freshmen. He frequently out-competed younger faculty in indoor handball. During his early years at OSU, Dr. Burt rode to campus on a Harley-Davidson motorcycle, wearing goggles and gauntlets.

On 7 June 1916, Harold Burt married Ruth Madolin MacIntosh, who is deceased. He is survived by one son, Benjamin, Professor Emeritus of Chemistry at Syracuse University, three grandchildren, and five great-grandchildren. Grandson Benjamin, Jr., has received four Oscars for his sound effects in Steven Spielberg's films, "Star Wars," "E.T.," "Raiders of the Lost Ark," and "Indiana Jones and the Last Crusade."

Harold Burt has been called a renaissance man, also a man for all seasons. Among his other hobbies were candid camera, amateur radio, and writing and working crossword puzzles. He attributed his long life to taking care of himself, by going easy on alcohol and cigarettes, plenty of exercise and sleep, doing enjoyable work, and playing ragtime piano. A biographical sketch appears in *American Psychologist* (47: 1677).

RONALD L. STUCKEY

Kenneth Edward Caster (1908-1992)

Kenneth Edward Caster, age 84, internationally known geologist and paleontologist, and Professor Emeritus of Geology at the University of Cincinnati, died 18 May 1992 following an illness of the heart. Although his studies of paleontology and stratigraphy were global in scope, he also authored a number of papers on Ordovician rocks and fossils from the Cincinnati region, where he was very active in the promotion of paleontology. Dr. Caster was one of the founders of the Cincinnati Dry Dredgers, an amateur fossil-collecting club that celebrated its 50th anniversary in 1992. Perhaps his best known work on Ohio geology (with Elizabeth A. Dalvé and John K. Pope) was his *Elementary Guide to the Fossils and Strata of the Ordovician in the vicinity of Cincinnati, Ohio*, published by the Cincinnati Museum of Natural History (1955). He was president of The Ohio Academy of Science (1961-1962).

Born 26 January 1908 in New Albany, PA, Kenneth E. Caster spent his boyhood years at Ithaca, NY. There at Cornell University, he earned all of his advanced degrees (B.A. 1929, M.S. 1931, Ph.D. in stratigraphy 1933), and was an assistant in entomology (1928-1930), an assistant in geology (1929-1930), instructor in paleontology (1930-1932), and instructor in geology (1932-1935). He became an assistant head of the Department of Science, State Normal School, Genesee, NY (1935-1936), before coming to Cincinnati (1936). At the University of Cincinnati Museum, Dr. Caster was a curator of paleontology (1936-1940), and in the Department of Geology he held positions of assistant professor (1936-1940), associate professor (1940-1952), and professor (1952-1978). He was also named a fellow in the Graduate School (1937-1985), and taught until retirement (1979). Many graduate students wrote their masters theses and doctoral dissertations on Ohio geology and paleontology under his guidance. Following retirement from teaching, he established the Kenneth E. Caster Fund which supports graduate students in paleontology. His unique collection of historical books and papers is now housed in the Caster Library in Braustein Hall at the University of Cincinnati.

At the request of the United States Department of State and the President of Brazil, Dr. Caster served as Visiting Professor and Head of the Geology-Paleontology Department of the University of Sao Paulo, Brazil (1945-1948). He was a Visiting Professor at the National School of Mines in Medellin, Colombia (1947). While in South America, Dr. Caster traveled extensively in connection with his research under two Guggenheim Memorial Fellowships (1947-1948). He spent a year in travel through South Africa (1954-1955), and in Australia and New Zealand (1956) under another Guggenheim award. He also served for an academic year as Visiting Professor at the University of Tasmania, Australia, under a Fulbright Fellowship (1955-1956).

In research, Dr. Caster published extensively on fossil brachiopods, sponges, echinoderms, and problematic creatures. The ancient faunas of the Devonian period were his long-time specialty, especially those of the Southern Hemisphere, whose ancient geography interested him very much. He was one of the early supporters of the Theory of Continental Drift and Plate Tectonics, at a time when these ideas generated much controversy among geologists.

Dr. Caster held memberships in many domestic and foreign scientific societies. In addition to serving as president of The Ohio Academy of Science (1961-1962), he was president of the Paleontological Research Institution and the Paleontological Society (1959), for the latter of which he was also the secretary (1947-1955) and vice-president (1957). He was elected a fellow of The Ohio Academy of Science, the Paleontological Society, and the Geological Society of America. Other organizations of which he was a member were the American Association for the Advancement of Science, the American Association of Petroleum Geologists, the Society for Vertebrate Paleontology, the Paleontologische Gesellschaft (elected to council 1961), the Société Géologique de France, the National Academy of Brazil, the Geological Society of Australia, the Paleobotanical Association of Great Britain, the Geological Societies of Sweden and Norway, and Sigma Gamma Epsilon, national earth college honor society, of which he served as vice-president.

Among Dr. Caster's many honors was the Gondwana Medal (1955), the first gold medal awarded by the Indian Geological Survey as a part of its centennial celebration, presented for his work on southern hemisphere geology and paleontology. Dr. Caster received the Doctor of Science Award for Excellence (1985) from the University of Cincinnati, in recognition for his teaching and the support and honors he received from the governments of India and Brazil, and the following societies: Paleontological Society, the Guggenheim and Fulbright Foundations, the National Research Council, and the Geological Society of America. He also received a medal from the Paleontological Society (1976).

Dr. Caster is credited with single-handedly establishing the discipline of paleontology at the University of Cincinnati. "I always appreciated the tradition and excellence that Caster instilled in the program at UC, and strive to maintain that today," said Geology Professor David Meyer, (expanded from an obituary by Michael C. Hansen and David L. Meyer. *Ohio Geology*, a quarterly publication of the Division of Geological Survey, Summer 1992, p. 7). Dr. Caster's wife Anneliese (m. 1933), also a geologist, survives. She shared his interest in paleontology, working alongside him for many years. They also enjoyed literature, theater, and music.

RONALD L. STUCKEY

William Bridge Cooke (1908-1991)

William Bridge Cooke, age 83, a specialist on the fungi of polluted waters and sewage, who was for 17 years mycologist in charge of fungus studies at the Robert A. Taft Sanitary Engineering Center, Cincinnati, OH, died 30 December 1991, in Cincinnati, after a short illness. He received two awards while at the Taft Center: superior service award from the United States Public Health Service for exceptional contributions to the improvement of water supplies (1959), and an award for excellence from the Federal Water Pollution Control Administration, U. S. Department of the Interior (1971). He was also the recipient of the Northeast Mycological Foray Service Award, *Amicus tironum* (1987), and together with his wife Vivian, they were awarded a plaque by the National Park Service, Department of the Interior, in appreciation for 48 years (1942-1990) dedicated to the study of fungi (1991).

Born 16 July 1908 in Foster, Warren County, OH, he was known as Bridge to his friends and colleagues. He received his degrees from the University of Cincinnati (B.A. 1937), Oregon State University (M.S. 1939), and Washington State University (Ph.D. 1950). During his undergraduate years Bridge worked on the preparation of an herbarium of fungi at the University of Cincinnati, and continued his studies in botany and mycology at Oregon State University, with a thesis on the resupinate pore fungi of Oregon. His doctoral dissertation at Washington State University, under the direction of Prof. Rexford F. Daubenmire, was a study of fungi in various ecosystems of eastern Washington and northern Idaho. He made over 6,000 collections during this study, and his dissertation, published in *Ecological Monographs* (25: 119-180), is one of the most comprehensive studies ever published on the ecological relations of fungi to other vegetation. Dr. Cooke continued to collect and study the Polyporaceae and related fungi whenever time permitted throughout his life, and became widely recognized for his expertise on the taxonomy of the polypore and related fungi. Another of his lifetime interests was the ecology of fungi.

Dr. Cooke participated as a post-doctorate, collecting and identifying fungi of Washington (1950-1952). He was appointed mycologist in charge of fungus studies at the Robert A. Taft Sanitary Engineering Center of the United States Public Health Service in Cincinnati, OH (1952). He became senior mycologist (1956) at that center in the Water Research Laboratory, Federal Water Pollution Control Administration, Department of Health, Education and Welfare and with the Advanced Waste Treatment Program, U. S. Department of the Interior until retirement in 1969. While there, he authored numerous papers on the fungi of polluted waters and sewage. Following retirement, he was a research associate in the Department of Botany, Miami University (1969-1970) and in the Department of Biological Sciences, University of Cincinnati (1970-1991).

Dr. Cooke collected and studied fungi at every opportunity from the mid 1930s when enrolled at Oregon State University until his death in 1991. His most extensive collections were in California (Mt. Shasta and Mt. Lassen), other northern California mountains, and also national parks in Washington and Oregon, and in the Glacier Bay area of Alaska. He also collected extensively in southern Ohio. Many collections were prepared and distributed to herbaria in North America. Several hundred numbers of his collections have been issued under the title of *Mycobiota of North America*.

For many years, Bridge was in charge of the annual forays held by the Mycological Society of America and in recent years had been Chairman of the Foray Committee. Almost every summer since returning to Ohio in 1952, he and his wife Vivian traveled to the Northwest by car or bus to further their collections in the national parks. Dr. Cook was the author of over 200 scientific papers and five books: *A Laboratory Guide to Fungi in Polluted Waters* . . . (1963), *Our Mouldy Earth* (1970), *The Ecology of Fungi* (1979), *The Fungi of Our Mouldy Earth* (1986); his lifetime fungal survey, *Fungi of Lassen Volcanic National Park*, was published by the western region of the National Park Service (Tech. Rep. 21. 1985). In recent years he had concentrated on Ohio fungi and at the time of his death he had completed a draft manuscript of the fungi of Ohio, the only comprehensive listing of all known Ohio fungi.

Bridge was elected to membership in the honor societies Blue Hydra, Gamma Sigma Delta, Phi Sigma, and Sigma Xi, and held memberships in many societies, among them The Ohio Academy of Science, the American Association for the Advancement of Science (fellow), American Academy of Microbiology (charter), Ecological Society of America, Mycological Society of America, British Mycological Society, Botanical Society of America, International Society of Human and Animal Mycology, and Society of Industrial Mycology. He was on the Board of Editors of *Mycopathologia et Mycologia Applicata*.

At his death, Dr. Cooke's collections of fungi, manuscripts, letters, personal papers, and collection of reprints were deposited in the Herbarium of the Department of Botany, Miami University, Oxford, OH, and his library of mycology and other books and personal memorabilia are in the Herbarium Library in the Museum of Biological Diversity, The Ohio State University, Columbus.

Bridge Cooke married Vivian Greenwald of Cincinnati, 12 June 1942, in Reno, NV. A memorial service for Dr. Cooke was held at St. John's Unitarian Church, Cincinnati, in early January 1992. Mrs. Cooke died 25 February 1993. Surviving is a niece, Mary Brigham of Maderia, OH.

C. WAYNE ELLETT
RONALD L. STUCKEY

Ralph Warren Dexter (1912-1991)

Ralph Warren Dexter, age 79, Professor Emeritus of Biological Sciences at Kent State University, died 29 October 1991 at Robinson Memorial Hospital, Ravenna-Kent, OH. Dr. Dexter gained world renowned recognition as an ornithologist and the author of more than 250 scholarly publications. He was an authority on the chimney swift, a bird with long, strong wings that could fly for hours, logging in as many as 135,000 miles a year. Dr. Dexter served as president of The Ohio Academy of Science (1968-1969).

Born in Gloucester, MA, 7 April 1912, Ralph Dexter was the son of Brant and Bessie (Clark) Dexter. He attended the Gloucester Public Schools and graduated from its high school (1929). His degrees were from Massachusetts State College (B.S. 1934, with honors in zoology) and the University of Illinois (Ph.D. 1938). While at both schools he held assistantships in zoology. He came to the Department of Biological Sciences, Kent State University in 1937, and advanced through the ranks as instructor (1937-1940), assistant professor (1940-1945), associate professor (1945-1948), professor (1948-1982), and professor emeritus (1982-1991). Prof. Dexter taught courses in bio-ecology, biogeography, entomology, ornithology, zoology, mammalogy, and the history of biology.

A selection of employment positions during summers included civilian instructor in geography (1943-1944); deputy inspector for insect and plant disease control, Department of Agriculture (1944); aquatic biologist, Connecticut State Board of Fisheries and Game (1945-1946); deputy game management supervisor, Ohio Division of Wildlife (1953); and visiting professor at The Franz Theodore Stone Laboratory, OSU, where he taught classes in invertebrate zoology (1953-1955, 1967, 1969, 1971). Dr. Dexter participated in a symposium in India (winter, 1968). He had a research contract with the United States Atomic Energy Commission (1956-1962).

Dr. Dexter's research interests were ecology of marine communities and the life histories, distributions, and food habits of mollusks, crustaceans, and birds, as well as history of American naturalists. Dr. Dexter was not only an authority on the chimney swift but also on the night hawk and the fairy shrimp. He was one of the last "general biologists."

Dr. Dexter held the record for the longest continuous teaching service to Kent State University. He was honored with the Outstanding Faculty Member Award (1957) and the President's Medal for distinguished service to the University. The extent to which he was valued by the university can be seen in the KSU seal, which features a chimney swift flying over a sunburst to represent the research component of the university. Dr. Dennis Cooke, his faculty colleague, said, "That illustrates how the university regarded him during the prime years when we were a growing institution." Cooke also described him as having a subtle, dry humor and a New England accent that did not disappear even after a half century of living away from that area. Department Chairman Dr. Keith Ewing described Dr. Dexter as "the father of ecology at KSU" who was dedicated to his work. Dexter was on campus nearly 365 days a year doing what he enjoyed most.

Ralph Dexter was active in many national professional societies and local organizations. In addition to the presidency of The Ohio Academy of Science, he was president of the American Malacological Union (1965-1966), the Society for the Study of Amphibians and Reptiles (1964-1965), and vice-president of the Inland Bird-Banding Association (1954-1963); and locally president of the Cuyahoga Falls Audubon Club (1947-1949) and the Portage County Nature Club (1966-1967). He was an officer in the American Association for the Advancement of Science (fellow; council, 1954-1956, 1958, 1965-1967) and the Ecologists' Union (now The Nature Conservancy), as national secretary-treasurer (1948-1951). Other memberships were in ecological, ornithological, zoological, and historical societies. Dr. Dexter was elected to the honor societies of Phi Beta Kappa, Phi Kappa Phi, Sigma Xi (secretary of KSU Chapter), Phi Sigma (president of Rho Chapter, 1936-1937), Beta Beta Beta, and Adelpheia.

Ralph Dexter was an active participant in The Ohio Academy of Science, joining in 1938, and in addition to president, he was elected a fellow, served as vice-president for Section A. Zoology (1946), secretary (1955-1957), and historian-archivist (1957-1967). As the Academy historian, he published papers in *The Ohio Journal of Science* on the history of the summer field meetings of 1891-1905 (1960), science education (1961), conservation (1962), and a chronological account of milestones in the Academy from 1891-1966 (1966). With Emanuel D. Rudolph and Ronald L. Stuckey, Dr. Dexter assisted in 12 special annual meetings for the History of Science sponsored by the Academy (1966-1977). He read over 60 papers on the subjects of zoology, ornithology, ecology, and history of science at Annual Meetings. Dexter was one of 25 Centennial Honorees selected by the Academy's Centennial Celebration Commission for contributions to science, education, and the Academy (1991). The Ohio State Legislature also paid tribute to his leadership and service by a special resolution in recognition of his achievements.

At Danville, IL, 13 June 1938, Ralph Dexter married Jean Westwater, who died in 1982. Surviving are two daughters, Carol (Dexter) Westphal of Baltimore, MD, and Diane (Dexter) LeBeau of Chicago, five grandchildren, and one great-grandchild. Prof. Dexter was cremated. A memorial service was held 16 November 1991 at the United Church of Christ, Kent.

REIDA E. NIEDERHOFER

RONALD L. STUCKEY

Nathan Stix Fechheimer (1925-1992)

Nathan Stix Fechheimer, age 67, professor of dairy science, poultry science, and molecular genetics at The Ohio State University, Columbus, and the Ohio Agricultural Research and Development Center, Wooster, died 10 November 1992, at University Hospital, Columbus. A world renowned cytogeneticist, his laboratory was the first to enter into cytogenetic studies of farm animals. Nathan S. Fechheimer was the recipient of several awards, among them the Louis Nemzer Award for defense of academic freedom, from The Ohio State University Chapter of the American Association of University Professors (1980), the Distinguished Scholar Award of The Ohio State University for his work with chromosome distribution in domestic animals (1986), the Outstanding Achievement Award from The Ohio State University Chapter of the American Association of University Professors (1988), the Robert F. Kennedy Award for Academic Freedom from the same group (1990), and the Meritorious Research Award from The Ohio State University Chapter of Gamma Sigma Delta.

Born 24 May 1925, in Cincinnati, OH, Mr. Fechheimer served in the United States Navy (1943-1946) and received an honorable discharge as a Seabee Coxswain. He received his degrees from The Ohio State University, the B.S. in Agriculture (August 1949), the M.S. in The Biology of Reproduction (December 1950), and the Ph.D. in Genetics (June 1957).

Nathan S. Fechheimer was appointed to the faculty of The Ohio State University as instructor (1952), became assistant professor (1958), associate professor (1960), and professor (1965). He spent two years as a post-doctoral fellow at the University of Edinburgh, Scotland, United Kingdom, and later two additional years as Senior Research Fellow in the Department of Genetics at the University of Edinburgh. In 1981 he was a Guest Scientist, Institute of Cytology and Genetics, Academy of Sciences of the Union of Soviet Socialist Republics, Novosibirsk. In 1988, he was appointed Guest Professor, Institute of Animal Science, Federal Institute of Technology, Zürich, Switzerland.

Dr. Fechheimer's research interests concerned genetics of pelage pigmentation of cattle; genetic aspects of intrauterine and premature death of animals; sex differentiation and development; causes and consequences of heteroploid gametes and zygotes in mammals and domestic fowl; consequences of structural rearrangements of chromosomes in regard to reproductive functions of animals; and sources and effects of chromosomal polymorphisms on animal populations. He was prolific in his authorship, having 25 monographs, reviews, book chapters, and symposium papers, and 91 full length scientific articles to his credit. During his years as professor, he advised thesis and dissertation research of 26 graduate students to the M.S. and 13 to the Ph.D.

Nathan S. Fechheimer became a member of The Ohio Academy of Science (1955), was elected a fellow (1959) and was vice-president of the Genetics Section (1965-1966). He also was elected to fellowship in the American Association for the Advancement of Science. He held memberships in the American Dairy Science Association, American Genetics Association, American Society of Animal Science, Genetics Society of America, Society for the Study of Fertility, and Society for the Study of Reproduction. He was active in the American Association of University Professors, having been president, vice-president and secretary of The Ohio State University Chapter; president, vice-president and secretary-treasurer of the Council of State Universities of Ohio (CSUO); and active in Committee A (Academic Freedom and Tenure) (1965-1989).

Dr. Fechheimer is survived by his wife, the former Lotti Juras, a son Marcus (Mike), and a daughter Jean Mansour, and two grandchildren. He was buried at United Jewish Cemetery, Cincinnati, 13 November 1992.

MICHAEL S. HERSCHLER

Richard Parker Goldthwait (1911-1992)

Richard Parker Goldthwait, age 81, died 7 July 1992, in Huggins Hospital, Wolfeboro, NH, following a massive cerebral hemorrhage the previous day. He was with his brother on a field trip collecting water samples in Lake Wentworth, near his native and summer home of Wolfeboro.

An internationally respected glacial geologist, Goldthwait studied the characteristics, movements, and deposits of glaciers in Alaska, Antarctica, Greenland, New Zealand, and New Hampshire. Because of his investigations on the glacial geology of Ohio since 1947, Goldthwait became one of the state's most respected and foremost geologists, having become known for his "Glacial Map of Ohio," co-authored with his colleague, George W. White, and his student, Jane L. Forsyth, and published by the United States Geological Survey (1961, revised 1967). Dr. Goldthwait was president of The Ohio Academy of Science (1958-1959), and his presidential address, "Scenes in Ohio during the last Ice Age," was published in *The Ohio Journal of Science* (1959). This paper is still one of the most useful summaries of the Wisconsin glacialiation in Ohio.

Born 6 June 1911, in Hanover, NH, Richard Goldthwait was the older of two sons of James Walter and Edith Dannel (Richards) Goldthwait. His father, a graduate of Harvard University (A.B. 1902, M.A. 1903, Ph.D. 1906), was a well-known glacial geologist, who came to Dartmouth College (1908) and was elected Hall Professor of Geology (1911). James Goldthwait taught courses in general and glacial geology and conducted field surveys of the geology of the state for more than 36 years. Richard and his younger brother, Lawrence (b.1914), both received early training in geology from their father during summer field expeditions. Both young men took their bachelor's degrees from Dartmouth College and continued on to graduate study in geology, specializing in glacial geology, with both eventually becoming professors of geology at The Ohio State University and the University of Maine, respectively.

Richard Goldthwait graduated from Hanover High School (1928) and Deerfield Academy (1929). In college he majored in geology at Dartmouth College (A.B. *cum laude*, 1933) and Harvard University (M.S. 1937, Ph.D. 1939). His doctoral dissertation concerned the sequence of local cirque

glaciation versus overriding continental ice on Mount Washington, NH. He remained at Dartmouth College as an Instructor in Geology (1934-1935), before doing graduate work at Harvard University while a teaching assistant there (1935-1939). Following the Ph.D., Dr. Goldthwait was Assistant Professor of Geology at Brown University (1939-1943), Technical Consultant in the United States Army Air Force (1943-1944) in Wisconsin, and then came to Ohio as a Lieutenant Colonel in the USAAF assigned as Materials Engineer at Wright Field, Dayton (1944-1946). In 1946, the late George W. White, geologist with the State Survey, recruited Dr. Goldthwait for the faculty in the Department of Geology and Mineralogy at The Ohio State University, where the latter remained until retirement from teaching (1977). He began as associate professor of geology (1946), was promoted to professor (1948), and became professor emeritus (1977). Concurrently, Dr. Goldthwait founded and was the first director of the Institute of Polar Studies (now Byrd Polar Research Center) (1960-1965), served as chairman of the Department of Geology and Mineralogy (1965-1969), and as Acting Dean of the College of Mathematical and Physical Sciences (1972).

Dr. Goldthwait's early research in glacial geology took him to many distant places. He estimated the relative age of the Damariscotta Indian shell heaps on the coast of Maine, mapped the glacial deposits of southwestern Cape Cod, joined an expedition to northeast Tibet, and joined another expedition, as one of two U.S. geologists, to study the history of the Barnes Ice Cap on Baffin Island. Intrigued by the great glaciers of Alaska, he helped to make the first seismic survey of ice thickness, conducted on Crillon Glacier in 1934. Dr. Goldthwait was the geologist with the Reynolds-Boston Museum expedition to China in 1948. During 1953-1956, he studied the ice cap north of Thule in Greenland. While there and attempting to record continuous movement of the ice-cliff front, he "invented" the cryokinegraph, an instrument similar to a water-level recorder. Dr. Goldthwait conducted glaciological studies while a Fulbright research scholar in New Zealand (1957). He launched a research program to chart the glacial chronology in Glacier Bay, AK, using the succession of climates and organisms occurring in the wake of present-day retreating glaciers to interpret, in similar fashion, the succession of climates and organisms occurring following the glaciers' retreat during the Wisconsinian ice age. (1958). Dr. Goldthwait published over 100 professional papers and was the writer/editor of five books, including a revision of a book on the geology of New Hampshire, originally written by his father.

A veteran of numerous expeditions to the world's cold regions, Dr. Goldthwait began organizing, during the 1950s, a group of research scientists interested in the geology, glaciology, botany, and paleontology of the Antarctic and Arctic polar regions. Formal designation of an Institute of Polar Studies on the OSU campus came in 1960, and Goldthwait served as its first director during the first five years of its existence. During austral summers on the Antarctic Continent, he directed teams of international scientists, his OSU colleagues, and graduate students in studies on the glacial geology, stratigraphy, vertebrate and plant fossils, and vegetation, especially the lichens. The Institute of Polar Studies continued under strong leadership and became one of the world's leading centers for polar research. Because the Institute obtained the extremely valuable collection of Richard E. Byrd's memorabilia from his polar expeditions, the name of the Institute was changed to the Byrd Polar Research Center (1986), to commemorate this gift and name. The Center's Library, named the Goldthwait Polar Library (1976), that houses Richard Goldthwait's many geology and polar books, was rededicated when the collection moved to Scott Hall (May 1992). The Library serves as a continuing reminder of Prof. Goldthwait's legacy to polar research and the many students that participated in his programs.

Soon after arriving at The Ohio State University, Dr. Goldthwait began investigating the glacial geology of Ohio, a subject that would occupy his talents until his death. The portions on glacial geology in the bulletins on the water resources of Montgomery and Greene counties were authored by him (1948, 1950). In 1950, he began the first of six summers in the field for the Division of Geological Survey and began to publish the first of more than 30 papers on the glacial geology of the state. Dr. Goldthwait was among the first to use ^{14}C -dating to unravel the time stratigraphy of glacial deposits. Numerous graduate students wrote theses and dissertations on Ohio glacial geology under his guidance. Dr. Goldthwait's final and perhaps most significant contribution to the glacial geology of Ohio, is a revised map of the glacial deposits of the state, compilation of which occupied much of Dr. Goldthwait's time during his retirement years. This map, to be published by the Ohio Division of Geological Survey, will replace the present Glacial Map of Ohio (U.S. Geol. Surv. 1961, rev. 1967).

Richard Goldthwait held memberships in many professional societies. In addition to being president of The Ohio Academy of Science, he served as president of a section of the Geological Society of America (1971), and Governor of the Arctic Institute of North America (1960-1966). He was elected a fellow in the American Association for the Advancement of Science, The Ohio Academy of Science, the Geological Society of America, and the Arctic Institute of North America; and was also a member of the American Geophysical Union (1956-1975), American Institute of Professional Geologists (1964-1977), American Polar Society (1950-1992), American Meteorological Society (1939-1950), Alaska Earthquake Commission of the National Academy of Science (1964-1974), International Geophysical Year (1957-1958), and International Glaciological Society (1947-1992).

Numerous honors have been bestowed on Prof. Goldthwait. While an undergraduate, he was elected to Phi Beta Kappa (1933), and was a Rufus Choate Scholar during his senior year. He was elected to Sigma Xi (1948) and served as president of The Ohio State University Chapter (1958-1959) and a member of its Board of Trustees (1985-1989). Dr. Goldthwait was voted one of the ten outstanding men by the Columbus Dispatch (1962); was "National Lecturer" on Alaskan glaciers for Sigma Xi (1964); received the United States Antarctica Service Medal given by the United States Congress (1968); the Outstanding Quaternary Scientist Award (1981) and the first Distinguished Career Award (1986), both from the Geological Society of America; elected one of 12 Honorary Members of the International Glaciology Society (1983); received the Distinguished Service Award from The Ohio State University (1981); chosen the Paul C. Daniels Memorial Lecturer of the Antarctic Society (1984); and was given a "Token of Esteem" at the 50th Annual Reunion of the Friends of the Pleistocene. Mt. Goldthwait in Antarctica was named in his honor by the United States Board on Geographic Names (1969). Dr. Goldthwait was the recipient of the Mather Medal for his lifelong contributions to the knowledge of the geology of Ohio, formally recognized by the Ohio Division of the Geological Survey (1989).

As a member of The Ohio Academy of Science, Dr. Goldthwait joined (1947), was elected a Fellow (1949), served as vice-president of Section C. Geology (1952-1953), elected president (1958-1959), participated in the visiting scientist program (1961), and served as chairman of the Government Advisory Committee (1962-1976). It was during his tenure as president that the Academy received the first of several grants from the Charles F. Kettering Foundation toward the establishment of a permanent central office. The acquisition of those grants under Goldthwait's leadership not only changed the Ohio Academy, but also had a profound effect on the entire state academy movement in the United States. Dr. Goldthwait's leadership and personal gifts enabled the Academy to establish The Kirtley F. Mather Memorial Fund in the Geology Section to assist in defraying page charges for papers published in *The Ohio Journal of Science*. In 1991, he was one of 25 Centennial Honorees selected by the Academy's Centennial Celebration Commission for contributions to science, education, and the Academy.

In Brookline, MA, 12 June 1937, Richard Goldthwait married Katherine Burnham, who survives along with his brother Lawrence and family of New London, NH; daughters Jane Goldthwait, Burnsville, NC; Susan (Goldthwait) Carlson, Denver, CO; Betsy (Goldthwait) Atkinson, Cedarville, OH; son Thomas, Concord, NH; and seven grandchildren. He attended the United Presbyterian Church, Worthington, OH; the Roser Memorial Community Church, south of Tampa, FL; and the Wolfeboro Center Community Church, Wolfeboro, NH.

This obituary represents a combined account largely drawn from the following published sources of Dr. Goldthwait's life and career by Michael C. Hansen (Ohio Geology, a quarterly publication of the Division of Geological Survey) Summer 1992, p. 7; Sidney E. White (Arctic and Alpine Research 25: 71-73); and Kenneth C. Jezek (Ice: News Bulletin of the International Glaciological Society, No. 101, pp. 30-31).

A memorial service was held 30 October 1992 for Richard P. Goldthwait at the Fawcett Center, The Ohio State University. Those who spoke were Garry D. McKenzie, organizer; David H. Elliot, Kaye R. Everett, David M. Mickelson, Jane L. Forsyth, and Lynn Edward Elfner, followed by a reception for family and friends in the Goldthwait Polar Library. Memorial contributions may be made to the Byrd Polar Research Center through the Development Fund of The Ohio State University, Fawcett Center, 2400 Olentangy River Road, Columbus, OH 43210.

Howard Wilfred Johnson (1901-1991)

Howard Wilfred Johnson, age 90, died 1 June 1991, after an extended illness at the Delta Regional Medical Center, Greenville, MS. He was born in Columbus, OH, 25 January 1901, and took his B.A. and M.S. at The Ohio State University (1923, 1924), the latter under the direction of Prof. W. G. Stover. He continued graduate studies at the University of Minnesota where he earned the Ph.D. in plant pathology (1928) under the direction of E. C. Stakman.

Dr. Johnson served on the faculty in the Department of Botany, Bacteriology and Plant Pathology, Louisiana State University (1928-1930). For the remainder of his career he was employed as a plant pathologist by the United States Department of Agriculture, Division of Forage Crops and Diseases, first at Arlington Farm in Virginia, later at the Washington, DC, offices of the USDA, and then at Beltsville, MD. In 1946, he was transferred to the Delta Branch Experiment Station, Stoneville, MS, where he was Senior Pathologist, making numerous contributions to the knowledge of diseases of forage legumes and grasses.

After 38 years with the USDA, Dr. Johnson retired in 1968 and continued to live in nearby Leland, MS. He became a member of The Ohio Academy of Science in 1923, elected fellow in 1940, and since 1969 had been an emeritus member. He had been a member of the American Phytopathological Society for 68 years. He was preceded in death by his wife and a son, both in 1988. Surviving are two daughters, Ann Louise Johnson of Leland, FL, and Jean J. Suter of Milwaukee, WI, and a son, Rev. Howard W. Johnson, Jr., Washington, DC.

C. WAYNE ELLETT

Elton Farnham Paddock (1913-1992)

Elton Farnham Paddock, age 78, Professor Emeritus, Department of Molecular Genetics, The Ohio State University, died 27 November 1992 at his home in Columbus. Born 11 December 1913 at Worcester, MA, Elton Paddock was the son of Everett and Elizabeth (Farnham) Paddock. He was a graduate of Bell High School (1932) at Bell, CA, and as a young man attained the rank of Eagle Scout in the Boy Scouts of America. Paddock earned a B.A. in biology from Whittier College (1936) and his Ph.D. in genetics from the University of California, Berkeley (1942). His doctoral dissertation entitled, "Polyploidy in *Solanum douglasii* Dunal and its Relatives," was the first Ph.D. completed under Dr. G. Ledyard Stebbins, the world's foremost authority on variation and evolution in plants. Two years of post-doctoral studies were completed at The Ohio State University (1941-1943.)

Dr. Paddock's professional positions were Laboratory Assistant in Biology, Whittier College (1933-1936); Field Assistant in Plant Pathology, California State Department of Agriculture (1939); Technical Assistant in Genetics, University of California (1940-1941); Muellhaupt Scholar, The Ohio State University (1941-1943); Plant Pathologist in Charge, Tomato Disease Laboratory, Texas Agricultural Experiment Station, Yoakum (1943-1945). At The Ohio State University, he first was a member of the Department of Zoology and Entomology (1946-1948) and then was transferred to the Department of Botany and Plant Pathology (1948). Dr. Paddock held the rank of assistant professor (1946-1954), associate professor (1954-1968), professor (1968-1984), and professor emeritus (1985-1992). In 1968, he transferred to the newly created Department of Genetics in the College of Biological Sciences. Concurrently, he was an Assistant Professor of Genetics, Summer Session, University of California, Santa Barbara (1951); and a Consultant, U.S. Agency for International Development Summer Science Institutes, India (summers, 1965, 1967).

While at The Ohio State University, Prof. Paddock initiated and taught the Cytological Basis of Genetics, Plant Genetics, and Cytogenetics. His areas of research were cytology of *Hevea brasiliensis*, cytogenetics of polyploids and interspecific hybrids of *Solanum*, disease resistance breeding of tomatoes, chiasma failure, and adjacent distribution in *Rhoeo spathacea*, somatic crossing-over in soybean, and leaf variation in *Sassafras* and *Philadelphus*. Dr. Paddock's papers appeared between 1941 and 1980, and were published mostly in the *American Journal of Botany*, *Bulletin of the Torrey Botanical Club*, *Journal of Heredity*, *The Ohio Journal of Science*, and *Phytomorphology*. As a graduate advisor, he supervised four masters students and three doctoral students who completed their degrees at The Ohio State University. He wrote "A History of Genetics at The Ohio State University" for the Centennial of the University (1969).

Prof. Paddock was a member of various scientific and honorary societies. He was an active member of The Ohio Academy of Science, becoming a fellow (1947) and serving as treasurer (1955-1959); a member of Sigma Xi and on its board of electors (1960-1963) of The Ohio State University Chapter; and president of the Ohio College of Biology Teachers Conference (1964-1965). Other memberships were the American Association for the Advancement of Science, American Institute of Biological Sciences, Genetics Society of America, Botanical Society of America, and American Genetics Association. He participated in the Columbus Senior Chorus at Barber-Roselea and the Columbus Alumni Chapter of the Society for Preservation and Encouragement of Barber Shop Quartet Singing in America (SPEBSQSA).

Dr. Paddock married Madeline Elizabeth Aborn on 15 August 1937 at Claremont, CA, who survives, along with daughter Sarah (Paddock) Vigar and son Frederic T. Paddock and their families, including five grandchildren and two great-grandchildren. A well-attended memorial service was held for Dr. Paddock at the Weir-Arend Funeral Home in Columbus on 1 December 1992. Contributions are to be directed to Berea College of Berea, KY, or to the Columbus Alumni Chapter of SPEBSQSA.

On a personal note, I had the pleasure of having a close acquaintance with Dr. Paddock. He served as my undergraduate advisor (1966-1969) in the Department of Botany, and I worked for him in the genetics greenhouse and the dreaded tomato fields. His study of the geographical distribution and the various leaf shapes of *sassafras* was fascinating. What I recall most, however, was Dr. Paddock's character—his ability to inspire by example. He was truly one of the finest individuals I have ever met, and his death leaves a void in the lives of those he touched.

W. LOUIS PHILLIPS

Kirkwood Arthur Pritchard (1920-1992)

Kirkwood Arthur Pritchard, M.D., age 71, of Paulding, OH, died 2 June 1992 in Parkview Memorial Hospital, Fort Wayne, IN, following an automobile-truck accident that occurred on the previous day at the intersection of U.S. 30 and Indiana 101. Dr. Pritchard, who came to Paulding in 1952, served the community for 40 years in the practice of general medicine and surgery. He was a member of the village council and served one term as mayor. As a member of St. Joseph's Catholic Church in Paulding, he participated in its choir. In The Ohio Academy of Science, he affiliated with Section D, Medical Sciences. Born 29 September 1920 in Cleveland, OH, Kirkwood A. Pritchard graduated from Cathedral Latin High School and attended both Westminster College, New Wilmington, PA, and the University of Pittsburgh, while serving as a medical corpsman in the United States Army and the U. S. Coast Guard. He was a pre-medical graduate of the University of Wyoming and a graduate of The Ohio State University School of Medicine (1947). Dr. Pritchard was an intern in general medicine and a resident in general surgery at St. Rita's Hospital, Lima, OH.

Kirkwood A. Pritchard was born to Kirkwood A. and Victoria R. (Sims) Pritchard. On 16 June 1948, he married Edythe Clay, M.D., who survives. Also surviving are two daughters, Mrs. Laura Gibson of Attica and Mrs. Alice Gerber of Haviland; two sons, Kirkwood A. Pritchard, Jr., Ph.D., of White Plains, NY, and James C. Pritchard, M.D., of Cincinnati; four grandchildren; one sister, Mrs. Carolyn V. Tobin, of Sidney, Nebraska; and one brother, Howard T. Pritchard, of Kensington, MD. He was preceded in death by his parents, a sister Suzanne Pritchard, and brother Robert Pritchard. Funeral services were held at St. Joseph's Catholic Church in Paulding, with burial in St. Paul's Cemetery, Paulding Township. Memorials are to be made to Paulding County Memorial Hospital or the St. Joseph's Indian School.

RONALD L. STUCKEY

Ann (Waterman) Rudolph (1934-1991)

Ann (Waterman) Rudolph, environmental and ecological bibliographer and information specialist for 26 years at Battelle Memorial Institute, Columbus (1964-1990), and nationally known antique button collector, died of pancreatic cancer at age 56 in Riverside Hospital, Columbus, 26 April 1991. She was the wife of Emanuel D. Rudolph. They were married 11 August 1962 in Villanova, PA.

On Independence Day, 4 July 1934, at Sutton's Bay, Leelanau County, MI, Ann Herrick Waterman was born to parents who operated a fruit farm noted for its dark red sweet cherries. She worked in the orchards during the cherry picking season, including many summers after her marriage. Ann attended the local public elementary and high schools, graduating valedictorian from Leland High School, Leland, MI (1952). Ann was active in the 4-H Club and the Future Homemakers of America, serving as president of both of the local school chapters. She won 72 Certificates of Achievement in 10 different categories at the state level for outstanding projects in 4-H (1944-1952). Ann became skilled in both skiing and archery, and won the 4-H Archery Championship in the female category for the State of Michigan.

Ann Waterman was awarded an entrance scholarship to Michigan State University, and while there became interested in plants, earning the B.S. (1956) and the M.S. (1959) in Botany, supervised by Dr. John H. Beaman. Her thesis, "Taxonomy and Pollen Grain Morphology of the Labiatae of Michigan," resulted in two publications (Publ. Mus., MSU, Biol. Ser. 1: 269-302; Webbia 15: 399-412). The study was based on examination of herbarium specimens and field work she conducted throughout the state accompanied by her pet collie dog.

Ann's education was augmented by attending the University of St. Andrews, Scotland (1954-1955) and by travelling to England, France, Spain, and Austria. The following summer she attended the Flathead Lake Field Biological Station of the University of Montana, where she studied algae under Dr. George W. Prescott (1956). For three summers, Ann was a museum aid in the Herbarium of the United States Natural History Museum, Smithsonian Institution, Washington, DC (1957, 1958, 1959), under Curator Lyman Smith, and was a special student at Harvard University, Cambridge, MA (spring 1958), studying pollen grains in the laboratory of Prof. Elso Barghoorn. Ann Waterman became employed as an assistant botanical librarian in the Harvard University Herbaria under the direction of Librarian Lazella Schwarten (1959-1961). During the summer of 1960, she enrolled in a library science course at Simmons College, Boston. The following year Ann accepted the chief librarian's position at the Pennsylvania Horticultural Society, Philadelphia (1961-1962).

In Columbus, Ann Rudolph worked as a technician in the plant anatomical and paleobotanical laboratories of Drs. Richard A. Popham and James M. Schopf, and enrolled in graduate level courses in botany at OSU (1963-1964). She then joined Battelle Memorial Institute, Columbus (1964), as an environmental bibliographer and information specialist. During 26 years there Ann co-authored computer generated bibliographies, thesauri, indexes, and 13 known technical reports concerning nuclear excavation considerations for an Atlantic-Pacific Inter-oceanic Canal in Central and/or South America (1969-1970), and on fuels and wastes associated with nuclear power plants and their bioenvironmental effects (1971-1984). Throughout her career at Battelle, she developed and maintained the ecological/environmental library.

Ann affiliated with several professional botanical and library information societies. As a member of The Ohio Academy of Science, she prepared lists of new books received that were published in *The Ohio Journal of Science* (1974, 1975, 1977). With the Friends of the Libraries of The Ohio State University, she participated in the book collecting seminars and helped raise funds for the biennial student book collector award. She was a founding member of the Friends of the Institute of Polar Studies, OSU (1980), its president, and an active promoter of the popularization of its activities. Ann was appointed Archivist/Historian of the First Congregational Church (1982). For nearly 30 years, Ann and her husband "Rudy" developed a personal library of over 53,000 scientific and technical books which she catalogued on 3 x 5 cards and entered each title in an accession book. Her books on buttons and costumes were donated to the Human Ecology Library at The Ohio State University.

In 1970, Ann Rudolph seriously began her hobby of antique button collecting, although this interest was implanted by a family friend when she was a child, and later in the 1960s when she acquired two collections through inheritance and purchase from two aunts. She enjoyed research on buttons and worked at classifying them by age, materials, and subject. She studied their history, photographed them, and prepared displays by topics for contest shows. Ann was instrumental in founding the local button club, the Columbus Fibulatics (1971), and served in various offices in that club and also in the Buckeye State Button Society. She became nationally known by preparing award winning displays, providing leadership, and developing archival collections of the records in the local, state, and national societies. At her husband's death in 1992 her extensive antique button collection was donated to the Historic Costume and Textiles Collection, Department of Textiles and Clothing, College of Human Ecology at The Ohio State University, along with a substantial endowment in Ann's memory to support graduate research in the Department.

At the time of Ann's death, she was survived by her husband, Emanuel D. Rudolph; her step-mother, who died two weeks later; her sister Nora (Waterman) Smith and her husband Lt. Col. Conway J. Smith; their children, nephews Brook and Blake Smith, all of the town of Lake Leelanau; a niece Pamela (Smith) Bell, her husband Eric; and their children, of Sutton's Bay. Ann's body was donated to the Medical School at The Ohio State University. A memorial service was held at the First Congregational Church on 5 May 1991. Memorials may be made to the First Congregational Church, 444 East Broad Street, Columbus, OH; or through the Development Fund of The Ohio State University for the Friends of the Historic Costume and Textiles Collection, mailed to Fawcett Center, 2400 Olentangy River Road, Columbus OH 43210.

RONALD L. STUCKEY

Emanuel David Rudolph (1927-1992)

Emanuel David Rudolph, age 64, died in University Hospital, Columbus, OH, on 22 June 1992, following a traffic accident of 19 June at the intersection of Highways 3 and 226 near Wooster, OH. For 37 years, he was a dedicated and distinguished educator in the botanical sciences, first at Wellesley College, MA, and second at The Ohio State University, Columbus. As a research scientist, Dr. Rudolph was a highly motivated investigator who became the first botanist to undertake extensive research on the vegetation of the Antarctic continent during five field expeditions in the 1960s. He also had two field seasons on the Arctic tundra of Alaska in the 1970s. From these efforts and his publications, he became internationally recognized for his diverse experimental field studies conducted toward understanding the total biology of lichens in both polar regions. Dr. Rudolph also engaged in research on stress conditions in lichens and fungi of coal strip mine areas in Ohio (1972-1981), and was particularly concerned with the effects of sulfur dioxide and other pollutants, heavy metal accumulation, and the role of mycorrhizal fungi in mineral cycling. Rudolph had broad interests in the history of nineteenth and early twentieth century biology and botany, especially the fascinating theme of the popularization of biology and botany in both adult and children's literature, and the role of women in the development of botany. Dr. Rudolph's publications were extensive, totaling at least 350, of which about half were in the history of botany. He presented over 100 papers at scientific meetings and special lectures, and numerous manuscripts were left unpublished. At the time of his death, Prof. Rudolph was engaged in writing a book-length manuscript on the "History of the Missouri Botanical Garden," of which he had completed the first chapter.

Born 9 September 1927 in Brooklyn, NY, Emanuel D. Rudolph was educated in the elementary and high schools there, graduating from Erasmus Hall High School (1945). He was active in the local Audubon Club, the school garden group, and the Bird Club. On field trips he was often seen crawling on the ground looking for the smallest plants, the mosses, liverworts, and lichens. Following a period in the U. S. Army (1945-1946), Rudolph attended Brooklyn College (1947), Hunter College (1948-1950), and New York University (1945, 1947-1950), graduating from the latter with a B. A. *cum laude* in Biology. He earned the Ph.D. in Botany specializing in Lichenology from the Henry Shaw School of Botany at Washington University and the affiliated Missouri Botanical Garden in St. Louis (1955). His Dissertation, "Revisionary Studies in the Lichen Family Blastiaceae in North America North of Mexico," completed under the direction of the mycologist, Carroll W. Dodge, was never published.

Rudolph was graduate assistant at Hunter College (1950), a docent at the Brooklyn Children's Museum (1950-1951), a research assistant in the Cryptogamic Herbarium of the Missouri Botanical Garden (1951-1955), a teaching assistant (1952-1953) and a special assistant (1953-1954) both in botany at Washington University, and an assistant librarian at the Missouri Botanical Garden (summers 1954, 1955). He was awarded fellowships and scholarships at Washington University (1952-1953, 1954-1955), and a Graves Scholarship to attend the Woods Hole Marine Biological Laboratory in Massachusetts (summer 1953). He won grants from the National Science Foundation to conduct research on the physiology and developmental morphology of fungi at the University of Wisconsin (1959), to study radiation biology at the University of Iowa (summer 1960), and to develop an expertise in the history of science and mathematics at American University (summer 1965). His polar research was supported by The National Science Foundation.

Prof. Rudolph's teaching career began at Wellesley College (instructor, 1955-1959; assistant professor, 1959-1961), and then he relocated to the Department of Botany and Plant Pathology at The Ohio State University, where he advanced through the ranks (assistant professor 1961-1964; associate professor, 1964-1969; professor, 1969-1989; professor emeritus, 1990-1992). He taught courses in general biology, general botany, lichenology, mycology, history of botany, and history of biology. The latter course, which he enjoyed the most, was taught for 22 years, more times than any of his other advanced level courses, even into three years of retirement (1990-1992). He supervised fourteen graduate students (4 Ph.D., 10 M.S.), who earned degrees in Botany or Environmental Biology, and other students who worked on special projects under his direction. He was a wise counselor to undergraduate and graduate students, in both the sciences and the humanities. Dr. Rudolph was a Research Associate with the Institute of Polar Studies (now The Byrd Polar Research Center) (1961-1992), and gave effective administrative leadership while Director of the Institute of Polar Studies (1969-1973), Director of the Environmental Biology Program (1974-1978), and Chairperson of the Department of Botany (1978-1987).

Dr. Rudolph was a member of nearly forty professional societies and other organizations. Those of which he served as president were the American Bryological and Lichenological Society (1973-1975), Board of Governors, Arctic Institute of North America (1977-1978), Columbus Natural History Society (1985), Friends of The Ohio State University Libraries (1978-1980), Ohio Academy of Medical History (1977-1978), Ohio Friends of the Libraries (1988-1989), and The Ohio State University Chapter of Phi Beta Kappa (1972-1973).

In The Ohio Academy of Science, Dr. Rudolph was especially active, joining (1962), elected a fellow (1965), membership chairperson for plant sciences (1967-1968), vice-president for plant sciences (1968-1969), visiting scholar program (1970), book review editor (1965-1974), associate editor for *The Ohio Journal of Science* (1974-1980), ecology committee (1971-1976), member of the council (1965-1980, 1984-1992), chairperson of the necrology committee (1984-1992), contributor to the *OAS Newsletter* (1991-1992), and president-elect (April 1992). At annual meetings, he was a frequent presenter of research papers on polar biology, lichenology, and the history of biology and botany. Dr. Rudolph worked with Ronald L. Stuckey and Ralph W. Dexter in arranging 12 special annual meetings for the History of Science (1966-1977). As chairperson of the Centennial Celebration Committee (1987-1991), Dr. Rudolph was instrumental in planning several special programs, and in conjunction with the Centennial Celebration Commission named 25 Centennial Honorees, selected for their contributions to science, education, and the Academy. His published Centennial Note on "One Hundred Years of Plant Science 1891-1991, with an Ohio Perspective" (*Ohio J. Sci.* 91: 104-107), provides a concise and thoughtful review of this discipline. He was the principal author of "The Ohio Academy of Science Mission Statement," adopted by the Academy 6 September 1991 and published in *The Ohio Journal of Science* (91: 178). One of his commitments to the future of the Academy was demonstrated by donating gift memberships to all members of the Department of Plant Biology, OSU.

Among Dr. Rudolph's numerous honors and awards are his election to three national honorary societies, Phi Beta Kappa (1950), Beta Lambda Sigma (1950), and Sigma Xi (1955). He was elected a fellow in the American Association for the Advancement of Science (1959), The Ohio Academy of Science (1965), Arctic Institute of North America (1973), and the prestigious Linnean Society of London (1974). The Rudolph Glacier in northern Victoria Land, Antarctica, was named in his honor by the United States Board of Geographical Names (1965). He was the recipient of the United States Antarctica Service Medal (1969). The lichen genus *Edrardia* from California was named for him (1980) as was the lichen species *Catillaria rudolphi* from Antarctica (1955). For distinguished service to Ohio in the promotion of collecting and reading books, he was presented an "Ohioana Citation" by the Ohioana Library Association, Columbus (1985), and also received a Service Award from the Friends of The Ohio State University Libraries (1989).

Emanuel David Rudolph was the son of Jack and Sarah (Wolfe) Rudolph, both born in the United States, but whose ancestry can be traced to Russia. His father was in charge of inventory for the Breakstone cheese-making company in New York City, and his mother was a homemaker. Emanuel Rudolph was the youngest of three children. His relatives are from Long Island, NY, where he is survived by sister Muriel (Rudolph) Rader of Wantagh, niece Laurie (Rader) Siegal of Merrick, and nephew Alan Rader of Wantagh. A brother Bert is deceased. A cousin, Blanche Rudolph, lives in Brooklyn. According to Dr. Rudolph's will, his body was to be donated to the Medical School of The Ohio State University. However, because his kidneys were donated and transplanted into two individuals whose lives have continued, the Medical School could not accept his body. He was cremated and his ashes are to be taken to Antarctica for final disposition.

As a lasting tribute to Prof. Rudolph, a Memorial Program presided over by Ronald Stuckey, his Executor, was held 7 July 1992 at the Fawcett Center for Tomorrow on the campus of The Ohio State University, Columbus. Nearly 300 people from the University and Columbus communities, including out of town guests and members of his and Ann's families, were in attendance. The complete text of all the presentations was edited by Stuckey and printed in the *OAS Newsletter of The Ohio Journal of Science* (December 1992, pp. 164F-164L). The extensive library of over 53,000 scientific and technical books assembled by Emanuel and Ann Rudolph was donated to The Ohio State University, and distributed mostly to the libraries of the Herbarium, the Byrd Polar Research Center, the Rare Books and Special Collections, the Biological Sciences Library, the Human Ecology Library, and the Main Library. Memorial contributions may be designated to any one of these libraries through the Development Fund of The Ohio State University, 2400 Olentangy River Road, Columbus OH 43210.

RONALD L. STUCKEY

Ruth Schollenbarger (1901-1991)

Ruth Schollenbarger, who died 17 December 1991 at age 90, is best remembered for her more than 65 years of involvement with the Ohio Girl Scouts. Born 7 January 1901, Miss Schollenbarger was known by many as "Sholly." She joined the Girl Scouts in 1921, and served as executive director of the Seal of Ohio Girl Scout Council (1952-1967) and before that, as executive director of the Newark, OH, council for 19 years. She also was executive director of the Hamilton, OH, council and directed several Girl Scout camps throughout the country. She received her 65 year membership pin in 1986. The Service Unit of the Girl Scouts of Upper Arlington was formerly called the Ruth Schollenbarger Service Unit, and a lodge at Wakatomica, the Licking County Girl Scout Camp, is named "Sholly O Lodge" in her honor.

Miss Schollenbarger was a graduate of The Ohio State University. She was elected a fellow of the Conservation Section of The Ohio Academy of Science (1971) and was named the American Association of University Women's Woman of the Year (1967). She is survived by a nephew, William Schollenbarger; and nieces Mrs. Joseph Weiss, Mrs. Julius Hilz, and Mrs. R. N. Ricketts. A memorial service was conducted at the Overbrook Presbyterian Church, Clintonville, and graveside services were held 18 December 1991 in Collinsville Cemetery, Collinsville, OH. A brief biography appears in *Columbus Unforgettables* (Vol. 3, p. 148, 1991). Memorial contributions may be given to Seal of Ohio Girl Scout Council or the Overbrook Presbyterian Church.

REIDA E. NIEDERJOFFER

Mary (Auten) Trautman (1898-1986) and Milton Bernhard Trautman (1899-1991)

Mary (Auten) Trautman, age 88, and Milton Bernhard Trautman, age 91, both former Curators in the Museum of Zoology, The Ohio State University, died in Wesley Glen Health Center, Columbus, 8 March 1986 and 31 January 1991, respectively. Mary Auten, who received her doctoral degree in entomology from The Ohio State University, was a college professor of biology and researcher on various insect groups. Following her marriage to Milton B. Trautman, she allied her interests to fishes and birds and became a faithful, devoted assistant in his research. Milton Bernhard Trautman, a self-taught student of natural history, became an internationally known ichthyologist and ornithologist, while employed as a Research Biologist, studying fishes of Ohio at The Franz Theodore Stone Laboratory, OSU, Put-in-Bay, OH (1939-1955), and later as curator of vertebrates (1955-1969) in the Ohio State Museum at The Ohio Historical Society, Columbus. With Mary's help, he completed two books, *Birds of Buckeye Lake* (1940) and *The Fishes of Ohio* (1957, revised 1981), which were so meticulously executed that they are considered unique and models in their fields.

Mary and Milton Trautman were elected members of professional honorary societies, Mary to Pi Lambda Theta and Pi Delta; Milton to Phi Sigma; and both to Sigma Xi. They were the first husband and wife team to be inducted into the Ohio Conservation Hall of Fame (1974), and the first team to be awarded Honorary Doctor of Science Degrees by The Ohio State University (spring commencement 1978). Earlier Milton received an Honorary Doctor of Science Degree from the College of Wooster, Wooster, OH (1951). Milton also received awards from the Woods and Water Club (1957), the Wildlife Society Publication Award in Fisheries (1959), the Ohio Outdoors Writers Annual Award (1959), Wheaton Club Man-of-the-Year (1968), and Science Book Award for *The Fishes of Ohio*, given by the Ohioana Library (1983). A very rare darter, *Noturus trautmani* W. R. Taylor, is named in honor of Milton Trautman, who first discovered the fish in 1943 on the Trautman Riffle in Big Darby Creek. Known as the Scioto Madtom, it was last seen in 1957. The Milton B. Trautman Nature Center at Maumee State Park on the shore of Lake Erie near the town of Oregon, OH, was dedicated 21 May 1993.

Milton Bernhard Trautman (1899-1991)

Born 7 September 1899 in what is now known as the German Village section of Columbus, young Milton B. Trautman had as a boyhood friend and playmate one of America's greatest humorists, James Thurber. Milton was a sickly child and often could not go out of the house to play or meet friends. He attended elementary classes in the Columbus school system, and he advanced to completion of two years of high school before his chronic illness by age 14 became so severe that he had to discontinue his formal education. During the next 17 years his illness was a definite handicap but, despite this problem, Milton became quite skilled in his father's very successful plumbing business, and he eventually qualified as a master plumber. In 1930, a team of physicians, in the course of exploratory surgery, removed a Meckel's diverticulum from his small intestine. At age 29, his health promptly improved, and he thought of returning to school, but considered himself too old for that effort. Meanwhile, during the very early years of Milton's life, he became intensely interested in natural history and all of the living world around him. At age 5, he first became excited about fish when he saw many different kinds swimming in the clear waters of Lake St. Clair, MI. He wanted to learn their names and watch their behavior. His parents took him on weekend fishing trips, first to Big Darby Creek, six miles west of Columbus, and later to other streams in central Ohio. In August 1906, at age 7, his parents first took him to Buckeye Lake, OH, where he met Stephen Holtzberry, a market hunter, trapper, and commercial fisherman. From him, Milton learned a considerable amount of information about the "good old days," all of which he wanted to remember. Since he could not yet write, his father obtained a tablet for him, and Milton told his father what to record. Soon Milton discovered that other individuals had learned and published information that was in papers and books in libraries, and that preserved specimens of animals were in museums.

These early efforts of recording information, at first only about fishes and birds, were expanded by 1939 into a daily account in diary form, totaling approximately 15,000 pages by the latter years of his life. With continuous trips to Buckeye Lake, Milton recorded numerous observations there on the kinds of fishes and birds and their behavior every year since his first visit. For over 50 years, he directed the Christmas bird counts at Buckeye Lake. In his early 20s, Milton met Edward L. Wickliff, head of fisheries in the Ohio Division of Fish and Game, and Milton began traveling with him to study fishes in Ohio. Milton took a part-time position under Wickliff's supervision to collect fish for the Division (1926). In the evenings, after a day's work in the plumbing business, he came to the Ohio State Museum, where he had discussions with the curators, Edward S. Thomas on birds, Dr. James S. Hine on vertebrates, Dr. Charles Walker on amphibians and reptiles, and Dr. Raymond C. Osburn on fishes.

Following successful surgery and quickly improved health in 1930, Milton was advised by his doctors that it would be too much for him to work two different jobs. Milton left the plumbing business and continued his work for the Department of Fish and Game until 1934. He was then invited by Dr. Carl Hubbs, a prestigious ichthyologist, to move to Ann Arbor, where he was appointed Assistant Curator of Fishes in the Museum of Zoology at The University of Michigan, and also Assistant Director and Research Biologist, Institute for Fisheries Research, Michigan Department of Conservation (1934-1939). While there, Milton continued his tutorialships with Dr. Hubbs on fishes and Dr. Joselyn VanTyne on birds; the latter with whom he joined as a member of the Museum's collecting expedition to Yucatan (1936) and who helped considerably with his book-length manuscript on the *Birds of Buckeye Lake*.

With financial difficulties at The University of Michigan, Curator Hubbs persuaded Dr. Thomas H. Langlois, Director of The Franz Theodore Stone Laboratory of The Ohio State University, Put-in-Bay, to hire Milton Trautman to coordinate the management studies of the fishes for the Ohio Department of Conservation, and to write a treatise on the fishes of Ohio that would culminate in a book. Langlois realized Trautman's expertise and was successful in acquiring funding from the University's Board of Trustees which enabled him to hire Mr. Trautman. For the next 16 years, Milton supervised the State fish managers and diligently worked toward producing a book-length manuscript on the fishes of Ohio (1939-1955). Soon after Milton's arrival at the Laboratory in 1939, Dr. Mary Auten, Assistant Professor of Biology at Ashland College, invited Milton to come to her laboratory and help identify fish that she had collected locally with financial support from a sportsman's club. Reluctant at first to become involved, he made the trip and was not only so impressed with her work and knowledge, but also with her as a woman, that a great attraction developed for each other, and they were married the following year on Flag Day (14 June 1940).

Mary (Auten) Trautman (1898-1986)

Born 10 February 1898 in Rawson, a few miles southwest of Findlay, Hancock County, OH, Mary Auten attended the Rawson elementary, junior high, and high school, graduating with a diploma (1916). Four years later, with a major in Latin, she earned the A.B. from nearby Bluffton College (1920), and came to The Ohio State University for graduate study in the Department of Zoology and Entomology, where she received the M.S. (1922) and Ph.D. (1933) in entomology. Her master's thesis was on "Insects Associated with Spider Nests," and her doctoral dissertation on "The Early Development of *Phoemia regina* Diptera (Calliphoridae)," both completed under the guidance of Prof. Clarence H. Kennedy and both published in *Annals of the Entomological Society of America* (1925, 1934, respectively). In this same journal, Mary Auten co-authored three other entomological papers with her lifelong friend, Dorothy Johnson Knull (1936, 1937, 1938). Three species of insects associated with spider nests, that Mary Auten collected at Put-in-Bay, were described as new to science by Dr. A. B. Gahan of the United States National Museum, Smithsonian Institution.

Before marriage, Mary Auten held several professional positions in biology: Graduate Laboratory Assistant, The Ohio State University (1920-1922); Instructor (1922-1923), Associate Professor (1923-1925), Adjunct Professor (1925-1927) Randolph Macon Women's College, Lynchburg, VA; Assistant Professor, Ohio Northern University, Ada (1927-1930); Assistant Professor, Bluffton College (1930-1931); Assistant Professor, Agnes Scott Women's College, Decatur, GA (1933-1934); and Assistant Professor, Ashland College, OH (1934-1940). During summers at The Stone Laboratory, she was Librarian (1936-1938), and then worked with her husband year-round as a Research Assistant (1942-1948). Following marriage, Mary relinquished her research interests in entomology and devoted her efforts to Milton's research. They completed the publication, *Birds of Buckeye Lake* (1940), traveled together to study fish and bird collections in many museums throughout the country, and worked on the manuscript for the book, *Fishes of Ohio*.

By action of The Ohio State University Board of Trustees, the year-round research program at The Stone Laboratory was discontinued in 1955, and the Trautmans and 90,000 specimens of fishes, mostly collected by Milton, were transferred to the Ohio State Museum of the Ohio Historical Society, Columbus. There Milton was appointed Curator of Vertebrates (fishes and birds) and Lecturer in the Department of Zoology and Entomology, OSU (1955-1969), promoted to Professor of Zoology (1969-1972), and became Professor Emeritus of Zoology and Curator Emeritus of Ornithology (1972-1991) in the Museum of Zoology, OSU, which in 1970 was separated from the Ohio Historical Society. Mary continued to work with Milton and was a non-salaried researcher in the Ohio Historical Society with titles of Assistant in Ichthyology (1955-1957), Senior Researcher (1957-1973), Adjunct Professor OSU and Assistant Curator of Ornithology (1973-1974), and Museum Associate (1975-1986). Concurrently, Milton participated in international congresses in Greece (1958), England (1966), Germany (1966), and South Africa (1969). He studied the ecology and behavior of the brown bear and salmon in Alaska (1959, 1961) and investigated the reinvasion of vertebrates into recently deglaciated areas at Muir Inlet, Glacier Bay, AK (1965). His only formal class teaching was the course in Ichthyology at The Stone Laboratory (1967, 1968, 1969).

Milton Trautman held memberships and important roles in various professional societies, including president of the Columbus Audubon Society (1960) and the Wheaton Club (1956-1957). Other memberships were the American Society of Ichthyologists (1928; vice-president, 1946-1948), board of governors (1933-1960), and life member; American Fisheries Society (1932; honorary life member, 1970); American Ornithologists' Union (1924; chairman illustrations committee of the Auk, 1950-1952; life fellow, 1955; research committee, 1957-1962); American Institute of Fishery Research Biologists (fellow 1960); American Wildlife Society (1959); Columbus Audubon Society (1922; life member, 1950); Wilson Ornithological Society (life member, 1944; treasurer, 1943-1945; council member, 1946-1949).

Mary A. Trautman held memberships in the American Entomological Society, and both were members of the American Association for the Advancement of Science (Milton, a fellow, 1963); the National Audubon Society; and The Ohio Academy of Science (both elected fellows and Milton named an honorary life member, 1973). They published papers in the Academy's journal, the most significant being an "Annotated List of the Birds of Ohio" (Ohio J. Sci. 68: 257-332).

The Trautmans are survived by one daughter, Elizabeth Mary (Beth Trautman), son-in-law Robert Rudolph, and granddaughter Anne, all of Bellevue, WA. Mary was the second oldest of four sisters; with Agnes, the oldest, deceased, followed by Vera Auten and Phyllis (Auten) Lutz, both of Lima, OH. Milton was an only child. Funeral services were held 12 March 1986 and 4 February 1991 in the Clinton Heights Lutheran Church, where both were longtime members, followed by burials in Green Lawn Cemetery. Memorial contributions may be made to the Museum of Zoology through the Development Fund of The Ohio State University, Fawcett Center, 2400 Olentangy River Road, Columbus, OH 43210.

RONALD L. STUCKEY

Charles Melvin Vaughn (1915-1993)

Charles Melvin Vaughn, age 77, nationally known parasitologist, Professor Emeritus, and former chairman of the Department of Zoology, Miami University, died from congestive heart failure 3 April 1993 at the McCullough-Hyde Memorial Hospital in Oxford, OH. Born 23 November 1915 in Deadwood, SD, he received the B.A. with highest honors (1939) and the M.A. (1940) from the University of Illinois, and the Ph.D. in invertebrate zoology from the University of Wisconsin (1943). He was president of The Ohio Academy of Science (1977-1978). Dr. Vaughn received the Benjamin Harrison Medallion (1979), an award given by Miami University in recognition of contributions to the advancement of education to the nation.

Dr. Vaughn's professional positions were Assistant in Zoology, the University of Illinois (1939-1940) and the University of Wisconsin (1940-1943); Parasitologist, United States Army (1943-1946); Medical Service Corps, United States Army Reserve (1946-1971), in which he attained the rank of Colonel; Assistant Professor (1946-1949) and Associate Professor (1949-1950), Miami University, Oxford, OH; Instructor in Parasitology and Senior Parasitologist, Institute of Tropical Medicine, Bowman Gray School of Medicine, Wake Forest College (1950-1952), and Associate Director of this Institute (1951-1952); Associate Director and Senior Parasitologist, Field Service Unit, American Foundation for Tropical Medicine, New York City (1952-1953); Professor and Chairman, Department of Zoology, University of South Dakota (1953-1965, on leave 1964-1965). Concurrently, he was a Lecturer in Parasitology, School of Medicine (1954-1964); Director of the Academic Year Institute (1957-1964); and Program Director for College and Elementary Programs and Research Training with the National Science Foundation, Washington, DC (1964-1965). Dr. Vaughn returned to Miami University as Professor and Chairman, Department of Zoology and Physiology (1965-1970); Acting Dean of Research (1970-1971); Professor and Chairman, Department of Zoology (1970-1978); Professor, Department of Zoology (1978-1981); Emeritus (1981-1993); and Associate Dean for Research (1983). Concurrently, he was a Biology Specialist with The Ohio State University/AID to India Education Project (1966); In-Service Institute Director for the National Science Foundation (1966-1973); and Field Center Coordinator of AAAS-NSF College Teacher Short Courses (1971-1980).

Dr. Vaughn's research was concerned with the ecology of human and animal parasites. He worked on surveys of the malaria parasite, intestinal parasites, and schistosomiasis. His papers spanned the years 1941 to 1978, and were published mostly in the *American Midland Naturalist*, *American Journal of Tropical Medicine and Hygiene*, *Journal of Parasitology*, and the *Proceedings of the South Dakota Academy of Science*.

Prof. Vaughn held memberships in many professional societies and, in addition to the presidency of The Ohio Academy of Science, he served as president of the American Microscopical Society (1972-1973), American Association of Academies of Science (1971-1972), and the South Dakota Academy of Science (1961-1962). He was elected a fellow in the American Association for the Advancement of Science (also council member, 1958-1962, 1965, 1973-1974, 1976-1982), The Ohio Academy of Science (also council member, 1970-1993; and representative to AAAS, 1976-1993), and Royal Society of Tropical Medicine and Hygiene. Other professional organizations were the American Association of University Professors, American Institute of Biological Sciences, American Society of Parasitologists, American Society of Tropical Medicine and Hygiene, American Society of Zoologists, British Society of Parasitology, Society of Protozoologists, and Wisconsin Academy of Sciences, Arts, and Letters.

Charles Vaughn was elected to several honorary societies to which he made substantial contributions. In Phi Beta Kappa, he was president of both the Iota of Ohio Chapter, Miami University, and the University of South Dakota Chapter; in Phi Kappa Phi, he was president of the Miami University Chapter; in Phi Sigma he was the national president and Miami University faculty advisor; and he also was a member of Kappa Delta Pi. Charles Vaughn was a scholar in Zoology at the University of Illinois (1939-1940), and was the China Medical Board Fellow of the Louisiana School of Medicine (1956) for six weeks in parasitology and tropical medicine in Central America.

In civic participation, Dr. Vaughn was a member of the Oxford Presbyterian Church, Oxford Senior Citizens, Torch Club, and the Red and White Club. He was a past president of the Oxford Lions Club and also president of the Friends of the Libraries Society of Miami University.

Surviving are his wife of 51 years, Mattie (Isaacson) Vaughn; a son, Richard Vaughn of Forest Park; a daughter, Martha (Vaughn) LaWarre of Middletown; and a grandson. The funeral service was held in Miami University's Sesquicentennial Chapel with burial in the Oxford Cemetery. Memorials are to be directed to the Friends of the Libraries Society, Miami University, Oxford, OH 45056.

Dr. Paul Daniel, Professor Emeritus of Zoology and Curator of the Hefner Zoology Museum at Miami University said: "I knew him first as one of his students and later as a colleague. He was a good friend, a fine teacher, and a good administrator for a long time . . . The University has lost a valued member of its staff and the Academy has lost a loyal supporter and worker."

W. LOUIS PHILLIPS

Monroe Thomas Vermillion (1904-1993)

Monroe Thomas Vermillion, age 89, Professor Emeritus of Botany at Ohio University, Athens, died 20 January 1993, at his home on Radford Road after an extended illness. He taught several courses in botany for more than 40 years before retiring in 1970. He also served as coordinator of biology and botany courses at Ohio University's affiliated campuses and educational centers. The Monroe "M.T." Vermillion Room in the greenhouse is named in his honor, and the establishment of The M. T. Vermillion Scholarship Fund has been proposed by Dr. James W. Strobel, a former student.

Born 17 January 1904 in Ironton, Lawrence County, OH, Monroe Vermillion was the son of Jesse Thomas and Erma (Wiseman) Vermillion. He spent his boyhood on the family farm on John's Creek. He attended school in Waterloo, Ada, and Rio Grande, and then taught in a one-room elementary school before enrolling at Ohio University. There Vermillion received a B.S. in Education (1927), and then from The Ohio State University he earned the M.S. in Botany, specializing in Plant Pathology (1931). His thesis was "The Yellow Mosaic Disease of Tomato."

Prof. Vermillion was an inspiring teacher and many of his students earned advanced degrees in botany, mycology, and plant pathology in other institutions. His published technical papers on plant diseases appear in *Lloydia* (1950, 1956), and on aquatic fungi in *The Ohio Journal of Science* (1966). He collaborated with other members of the Department of Botany in writing *The Living World*, a laboratory manual for the botanical survey course. He assisted state and federal projects in plant pathology and agriculture.

Prof. Vermillion was a member of several professional societies. In The Ohio Academy of Science he became a member (1933), was elected a fellow, and served as coordinator of the Junior Academy's district science fair (1965, 1966). Other organizations were the American Phytopathological Society, American Institute of Biological Sciences, National Association of Biology Teachers, and the Mycological Society of America. He was a member of the honorary societies, Sigma Xi and Kappa Delta Pi, serving as president of the local chapter of the latter society.

In the local community, Prof. Vermillion was active in many organizations, including a leader in the Young Men's Christian Association, Indian Guides, Athens Lions Club (president), and Lions International. He was an active member since college days in the Athens First Christian Church (Disciples of Christ), serving as deacon, elder, Sunday school superintendent, adult class teacher, and board chairman. Active in district ministries, Prof. Vermillion was the moderator of the district men's fellowship. One of his favorite hobbies was writing poetry.

Prof. Vermillion is survived by his wife of 63 years, Bertha Louise (Brigner) Vermillion; two sons and daughters-in-law, Art and Pauline Vermillion, Indianapolis, IN, and Gary and Donna Vermillion, Athens; one daughter and son-in-law, Monia Lee and Robert Alexander, Fort Wayne, IN; eight grandchildren and 10 great-grandchildren. He was preceded in death by two sisters, Edith Poole and Martha Kerr, and a brother, Kenneth. Funeral services were held 23 January 1993 in the Athens First Christian Church with burial in the Athens County Memory Gardens. Memorials are to be made to the M. T. Vermillion Scholarship Fund, Ohio University Foundation, P.O. Box 869, Athens, OH 45701.

C. WAYNE ELLETT
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Robert Dale Warmbrodt (1947-1992)

Robert Dale Warmbrodt, age 45, died from AIDS-related complications, 15 December 1992, at his home in Silver Spring, MD. He was the director of the Biotechnology Information Center at the National Agricultural Laboratory, Beltsville, MD. In October 1980, Dr. Warmbrodt joined the Department of Botany at The Ohio State University, where he taught courses in General Botany and Developmental Plant Anatomy. His research interests were in plant anatomy, especially in the structure and differentiation of phloem in cryptogamic plants. Prior to coming to Columbus, he was an Alexander von Humboldt Fellow at the Forstbotanisches Institut, University of Goettingen, Federal Republic of Germany (Jan.-Sept., 1979-1980; July-Nov. 1981).

Born 30 August 1947 to Harold and Lorene Warmbrodt in Boonville, MO, Robert Dale Warmbrodt graduated from Bunceton High School (1965), and with a B.A. and honors in botany from the University of Missouri, Columbia (1970). From the University of Wisconsin, Madison, he earned the M.S. (1973) and the Ph.D. (1978) in Botany, with emphasis on Plant Anatomy and a minor in Horticulture. While at the University of Missouri he was an undergraduate laboratory assistant (1967-1970) and a graduate teaching assistant (spring 1970). At the University of Wisconsin, he was a graduate teaching assistant (1970-1976, spring 1978), a lecturer and research assistant in plant anatomy (1976-1977), a Davis Fellow (fall 1977), and a post-doctoral research associate (July-Dec. 1978).

At The Ohio State University, Dr. Warmbrodt was an Assistant Professor of Botany (1980-1984); faculty research associate, Department of Horticulture, University of Maryland, College Park (1984-1986). While there he held an affiliation with the U.S. Department of Agriculture's Climate Stress Laboratory where he conducted research aimed at improving crop productivity. He then became Plant Physiologist, Plant Photobiology Laboratory, USD-ARS Beltsville, MD (1987-1990). In 1990, he was named head of the Biotechnology Information Center, and also was a lecturer in introductory biology at Northern Virginia Community College, Loudoun County Campus.

Dr. Warmbrodt's research in botany was conducted mostly during his graduate school years and was co-authored with Ray F. Evert. Their papers were on the development of the stem structure in *Lycopodium lucidulum* and comparative leaf structure in ferns, published from 1974 to 1979 in the *American Journal of Botany* and the *Botanical Gazette*. His paper, "Characteristics of structure and differentiation in the sieve elements of lower vascular plants" (*Berichte der Deutschen Botanischen Gesellschaft* 93: 13-28), resulted from his research on the Alexander von Humboldt Fellowship.

Dr. Warmbrodt was elected to the honor societies of Sigma Xi, Phi Kappa Phi, Sigma Rho Sigma, and Phi Eta Sigma. He held memberships in the American Association for the Advancement of Science, American Fern Society, American Institute of Biological Sciences, American Society of Agronomy, Botanical Society of America, Crop Science Society of America, and The Ohio Academy of Science.

Dr. Warmbrodt is survived by his companion, James R. Marcetich, of Silver Spring, MD; his mother, Lorene Prewitt Warmbrodt of Bunceton, MO; a brother, Harold H. Warmbrodt, Jr., of Fairway, KS; a sister, Carole Sue Delaite of Columbia, MO; and three nieces. Funeral services were held at the Bunceton Federated Church, followed by interment in Walnut Grove Cemetery, Boonville, MO. Memorials are to be made to the Whitman-Walker Clinic, 1407 South Street, N.W., Washington, DC. or The University of Wisconsin Foundation, Biological Sciences, P.O. Box 8860, Madison, WI 53708.

RONALD L. STUCKEY